

## Technical Appendices

### Appendix B – Agricultural Resources

Pacific Municipal Consultants. California Agricultural Land  
Evaluation and Site Assessment Model for the Cochrane Road  
Planned Unit Development. June 12, 2005



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June 12, 2005

Rebecca Tolentino  
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RE: AGRICULTURAL LAND EVALUATION AND SITE ASSESSMENT MODEL –  
COCHRANE ROAD PUD EIR

Dear Rebecca:

The California Land Evaluation and Site Assessment (LESA) model was used to determine the quality of the agricultural land at the Cochrane Road Planned Unit Development (PUD) property, as recommended by Appendix G of the California Environmental Quality Act (CEQA). The project site is approximately 66.49 acres and is comprised of rural residential uses, an equestrian facility and active agricultural land that has been in production since at least 1917. Agricultural uses at the project site include approximately 16.7-acres of dry-land grain crop, 26.9-acres of irrigated row and field crop, 7.7-acres of pasture, and 6.8-acres of vineyard.

The California Department of Conservation, Division of Land Resource Protection, recommends using the Land Evaluation and Site Assessment (LESA) model, a point-based approach, to rate the relative value of agricultural land resources. The LESA model defines and measures two separate sets of factors: 1) a 'Land Evaluation' factor, which measures the inherent soil-based qualities of land as they relate to agricultural suitability, and 2) a 'Site Assessment' factor, which measures social, economic, and geographic attributes that also contribute to the overall value of the agricultural land. This evaluation is based on information contained within the following documents, as well as information provided by the project applicant:

- Department of Conservation, Office of Land Conservation. *California Agricultural Land Evaluation and Site Assessment Model*. 1997.
- Twining Laboratories, Inc., *Phase I Environmental Site Assessment, Northeast of Interstate 101 and Cochrane Road, Morgan Hill, Santa Clara County, California*, June 2004.

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The project site has total LESA score of 63.37 points. The 'Land Evaluation' factor score is 41.62 and the Site Assessment score is 21.75. LESA scores between 40 and 59 points are considered significant only if the 'Land Evaluation' and 'Site Assessment' sub-scores are both greater than or equal to 20 points. Since both the Land Evaluation and Site Assessment sub-score for the proposed project are greater than 20 points, conversion of the agricultural land at the project site is considered significant under the LESA model.

The following provides an overview of the LESA model, the LESA model worksheets, and a map presenting the zone of influence boundaries.

**Land Evaluation.** The 'Land Evaluation' portion of the LESA model includes two separate factors: 1) The Land Capability Classification Rating (LCC), and 2) the Storie Index Rating. According to the *Soil Survey of Eastern Santa Clara Area, California* approximately 90 percent of the project site, or 59.84 acres, is comprised of the Arbuckle gravelly loam, 0 to 2 percent slopes (ArA) soil series and approximately ten percent of the project site, or approximately 6.65 acres, is comprised of San Ysidro loam, 0 to 2 percent slopes (SdA) soil series. The Arbuckle gravelly loam soil series has a LCC of IIs and a Storie Index rating of 72. The San Ysidro loam soil series has a LCC rating of IIIs and a Storie Index rating of 51. Using the numerical conversion of LCC provided in the *California Agricultural LESA Model Instruction Manual* (DOC 1997) and the Storie Index rating, the LCC score and the Storie Index rating score were calculated for the project site based on the percentage of each soil series. As shown in Table 1, the project site has an overall LCC score of 78 and a Storie Index score of 69.

TABLE 1  
LAND EVALUATION WORKSHEET

Land Capability Classification (LCC) and Storie Index Scores							
A	B	C	D	E	F	G	H
Soil Map Unit	Project Acres	Proportion of Project Area	LCC	LCC Rating	LCC Score (C x E)	Storie Index	Storie Index Score (C x G)
ArA	59.84	0.9	IIs	80	72	72	64.8
SdA	6.65	0.1	IIIs	60	6	51	5.1
Totals	66.49	(Must Sum to 1.0)	LCC Total		78	Storie Index Total	69.9

**Site Assessment.** The 'Site Assessment' portion of the LESA model rates four factors separately, including the following: 1) project size, 2) availability of irrigation water, 3) surrounding agricultural land, and 4) surrounding protected agricultural land (e.g. under a Williamson Act contract or conservation easement).

1. **Project Size.** The project size component relies upon LCC and the acreages of each soil type at the project site. As discussed above, the Arbuckle gravelly loam, 0 to 2 percent slopes (ArA) soil series comprises approximately 59.84 acres of the project site and has a LCC of IIs. The San Ysidro loam soil series, 0 to 2 percent slopes (SdA) has a LCC rating of IIIs and comprises approximately 6.65 acres of the project site. Based on the 'project scoring' for in the *California Agricultural LESA Model Instruction Manual* (DOC 1997), the ArA soil series would result in a score of 80 and the SdA soil series would result in a project

score of zero because this soil series is less than ten acres of the total acreage of the project site. The highest project score, in this case a score of 80 for the ArA soil series, is the final 'project size' score used in the site assessment portion of the LESA model.

2. Water Resource Availability. The water resources availability component is based upon identifying the various water sources that would supply water to the project site and determining whether restrictions in supply are likely to take place in years characterized as being periods of drought and non-drought. Agricultural production is feasible at the project site during non-drought year's, however irrigation production during drought years is feasible but is considered physically and economically restrictive. Therefore, the project site was given a water resource availability score of 65.
3. Surrounding Agricultural Land. Surrounding agricultural land or Zone of Influence (ZOI) is defined as the land near a given project, both directly adjoining and within a defined distance, that is likely to influence, and be influenced by the agricultural land use of the subject project site. Points are given for the percentage of agricultural land in the ZOI. Due to the surrounding existing development and agricultural land, the percentage of surrounding agricultural land is under 40 percent. As the amount of surrounding agricultural land located within the ZOI is under 40 percent; it received a score of zero, as noted in the *California Agricultural LESA Model Instruction Manual* (DOC 1997).
4. Surrounding Protected Resource Land. Protected resource lands are those lands with long-term use restrictions that are compatible with or supportive of agricultural uses of land. The uses include, Williamson Act Lands, publicly owned lands such as park, forest or watershed resources, and lands with agricultural, wildlife habitat, open space, or other natural resource easements that restrict the conversion of such land to urban or industrial uses. The Zone of Influence was used to determine the percentage of surrounding properties that are considered protected resource land. As in the Surrounding Agricultural Land factor a score of less than 40 percent garners a score of zero (DOC 1997). The protected land project score is less than 40 percent of the ZOI; therefore the "Surrounding Protected Resource Land" score is zero.

**LESA Score.** A single LESA score is generated for a given project after all the individual 'Land Evaluation' and 'Site Assessment' factors have been scored and weighed as described above. The LESA Model is weighed so that 50 percent of the total LESA score is derived from the 'Land Evaluation' factors and 50 percent from the 'Site Assessment' factors. Scoring thresholds for projects are based upon both the total LESA score as well as the component 'Land Evaluation' and 'Site Assessment' sub-scores, as shown in Table 2, LESA Model Scoring Thresholds.

TABLE 2  
LESA MODEL SCORING THRESHOLDS

Total LESA Score	Scoring Decision
0 – 39 Points	Not Considered Significant
40 – 59 Points	Considered Significant <u>only</u> if LE <u>and</u> SA sub-scores are each <u>greater</u> than or equal to 20 points
60 – 79 Points	Considered Significant <u>unless</u> either LE <u>or</u> SA sub-scores is <u>less</u> than 20 points
80 – 100 Points	Considered Significant

The LESA model score for the proposed project site is **63.37**, as shown in Table 3. Since the overall score is greater than 60 points and the 'Site Assessment' and 'Land Evaluation' sub-score for the proposed project are greater than 20 points, conversion of the agricultural land at the project site is considered significant under the LESA model.

TABLE 3  
FINAL LESA SCORE SHEET

A	B		C		D
Factor Name	Factor Rating (0-100 points)	X	Factor Weighting (Total = 1.00)	=	Weighted Factor Rating
<b>Land Evaluation</b>		X			
1. Land Capability Classification	78	X	0.25	=	19.5
2. Storie Index Rating	69.9	X	0.25	=	22.12
<b>Subtotal</b>		X			<b>41.62</b>
<b>SITE ASSESSMENT</b>		X			
1. Project Size	80	X	0.15	=	12
2. Water Resource Availability	65	X	0.15	=	9.75
3. Surrounding Agricultural Lands	0	X	0.15	=	0
4. Protected Resource Lands	0	X	0.05	=	0
<b>Subtotal</b>					<b>21.75</b>
<b>Total LESA Score</b>					<b>63.37</b>

Please contact me if you have any questions at (831) 644-9174, Extension #209.

Sincerely,

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